

GP-303043

ENGINE LUBRICATION SYSTEM AND PRESSURE REDUCING  
VALVE FOR LIMITING OVERHEAD OIL FLOW

## ABSTRACT OF THE DISCLOSURE

A lubrication system for an internal combustion engine having a pressure reducing valve to optimize oil flow through an engine to increase engine efficiency. The lubrication system includes an engine driven oil pump connected to supply pressurized oil through a main oil feed to a main bearing gallery, a cam gallery and a hydraulically actuated device such as a cam phaser or switching valve lifters. A pressure reducing valve connected between the main bearing feed restricts oil flow to the cam gallery to raise oil pressure supplied to the hydraulically actuated device. The increased oil pressure to the hydraulically actuated device allows the engine to use a smaller oil pump and thereby increase engine efficiency while providing for actuation of the cam phaser or the switching lifters over the full engine speed range.